

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Previously presented) A fuel cell system according to claim 18, wherein the control unit is programmed to control the valve to add water to the reformed gas to obtain a desired oxygen/carbon ratio for the shift converter.

3. (Cancelled)

4. (Cancelled)

5. (Previously presented) A fuel cell system according to claim 18, further including means for collecting liquid phase water from the fuel cell and recycling at least a portion of the collected liquid phase water to the source.

6. (Previously presented) A fuel cell system, comprising:
a fuel processor for converting a hydrocarbon fuel into a high temperature reformed gas containing hydrogen, carbon dioxide and carbon monoxide,

first conduit means for communicating the reformed gas to a shift converter located downstream of the fuel processor for further converting the reformed gas to primarily a hydrogen and carbon dioxide containing gas stream,

second conduit means for communicating the gas stream to a fuel cell downstream of the shift converter for reacting the hydrogen in the gas stream,

a source of liquid phase water, and

water feed means for feeding liquid phase water from the source to the first and second conduit means in a controlled manner for cooling the reformed gas and gas stream, respectively, to a desired temperature, wherein the water added

to the reformed gas sets the desired oxygen/carbon ratio for the shift converter, and further including at least one selective oxidizer, between the shift converter and the fuel cell, and located downstream of where the water feed means feeds water to the second conduit means.

7. (Previously presented) A fuel cell system according to claim 18, wherein the valve comprises at least one solenoid valve which opens and closes in response to the sensed temperature.

8. (Previously presented) A fuel cell system according to claim 18, wherein the water feed control unit includes means to atomize the water.

9. (Previously presented) A fuel cell system according to claim 8, wherein at least one of the first conduit and the second conduit includes a packing of high surface area material and the wherein the water feed control unit feeds water to the material.

10. (Original) A fuel cell system according to claim 9, wherein said high surface area material is selected from the group consisting of ceramic pellets, steel wool, reticulated ceramic foam, metal foam, and honeycomb monoliths.

11. (Previously presented) A fuel cell system according to claim 2, wherein the water feed control unit is adapted to feed water to both the first conduit and the second conduit.

12-16. (cancelled).

17. (Previously presented) A fuel cell system according to claim 18, further comprising at least one selective oxidizer positioned between the shift converter and the fuel cell, and located downstream of where the water feed control unit feeds water to the second conduit.

18. (Previously presented) A fuel cell system, comprising:

a fuel processor for converting a hydrocarbon fuel into a high temperature reformed gas containing hydrogen, carbon dioxide and carbon monoxide;

a shift converter located downstream of the fuel processor for further converting the reformed gas to primarily a hydrogen and carbon dioxide containing gas stream,

a fuel cell downstream of the shift converter for reacting the hydrogen in the gas stream,

a first conduit connecting the fuel processor to the shift converter for carrying the reformed gas to the shift converter;

a second conduit connecting the shift converter with the fuel cell for carrying the gas stream to the fuel cell;

a source of liquid phase water; and

a water feed control unit for feeding liquid phase water in a controlled manner from the source to at least one of the first and second conduits for cooling at least one of the reformed gas and gas stream, respectively, to a desired temperature, wherein the water feed control unit includes a sensor for sensing temperature of the at least one of the reformed gas and gas stream, a valve for adjusting the flow rate of water into the at least one of the reformed gas and the gas stream, and a control unit for controlling the valve based upon temperature sensed by the sensor, and whereby evaporation of the liquid phase water cools the at least one of the reformed gas and the gas stream.